The Vector Vortex: What is needed to be ready?

Gene Serabyn
Jet Propulsion Laboratory
California Institute of Technology
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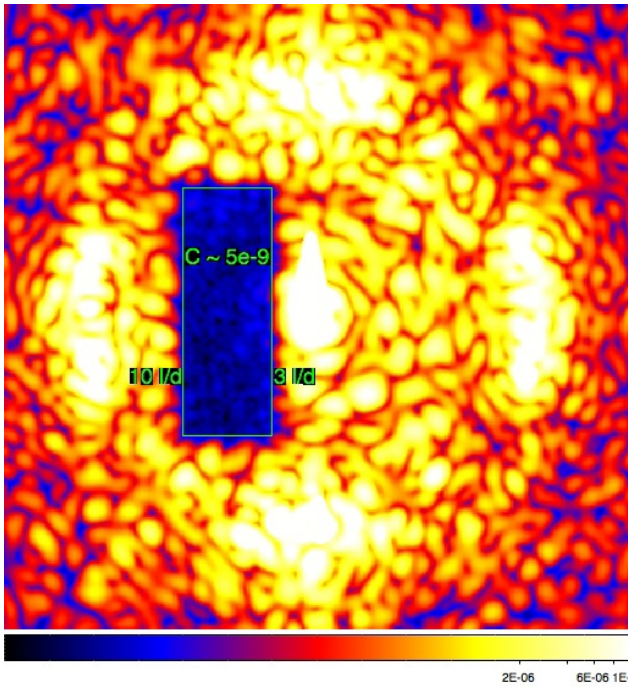
Where we are

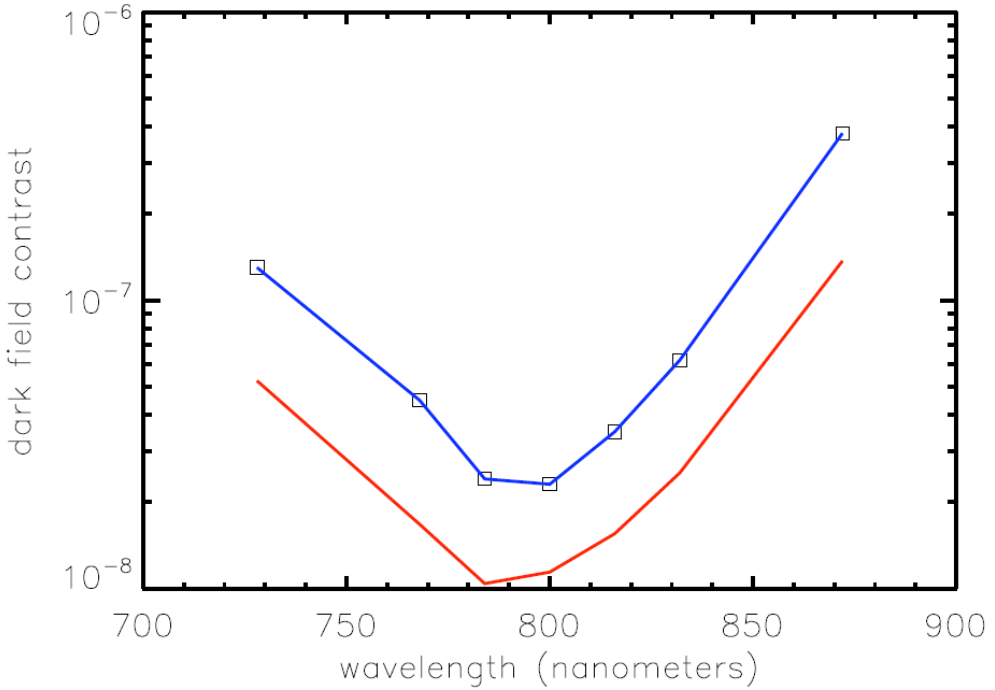
•Monochromatic :

@785 nm (laser):
3.5e-9 between 2.5-11 λ/d
(1.1e-8 at 2.5-3.5 λ/d)



- Broadband:
- Seven 2% filters):
- Blue curve: entire dark hole
- Red curve: top 1/2 of dark hole.
- Preliminary contrasts:

1.0e-8 in the best 2% passband
1.6e-8 for a 10% passband.
~ 3.8e-8 for a 20% passband



Route Forward

- Device Issues (~APRA)
  - LC manufacturing issues
    - materials, center, multilayers…
  - Alternate Technologies
- Performance Tests (⇒TDEM)
  - Contrast, IWA, BW, #pols.
  - Access to HCIT (or something like it)
- System Level Issues
  - Pointing, 2-pol. issues, WFS, LO errors & stability, DM TRL
- System Performance Modeling
  - Performance modesl, error budgets, science output vs. size
- On-sky demonstrations of astronomy
  - Ground-based (10-5 –> 10-7) ; balloons; explorers, probes